

**REMARKS**

Applicant wishes to thank the Examiner for the comments with regards to the claims.

It is believed the claims have now been amended to more than adequately remove any 35 U.S.C. §112 issues.

The Examiner raised an objection with regards to Claims 22-29, citing MPEP §1453(V)(C). This MPEP section deals with only underlined claims for a re-issue application. This is not a re-issue application and it is believed that the submission of new claims without underlining is entirely appropriate. If there are any further questions, the undersigned attorney would appreciate a telephone conference.

Attached hereto is an Information Disclosure Statement and the appropriate fee to make of record references which do not appear to be as material, but were cited in a corresponding European patent application.

The present invention provides an improvement in a relatively crowded field whereas the Examiner may be aware, labor costs associated with receiving, storing and dispensing monetary banknotes for a wide variety of activities including vending machines, kiosks, gambling machines, dispensing of transportation tickets, etc. has required automatic and self contained banknote receiving and dispensing apparatus. To facilitate both the removal of stored banknotes and the recharging of new banknotes, a separate removable banknote storing vault of unit can be inserted into a banknote receiving unit such as a vending machine.

The present invention provides the ability to monitor and validate both banknotes and the position and status of a banknote within a banknote receiving apparatus.

In this regard, the ability to provide a printed circuit board that is mounted for carrying a light emitting unit such as a photo diode and also receiving light, to record its presence or

absence, such as a photo receptor, is advantageous when it can be permanently mounted within the banknote receiving unit and can effectively communicate with the removable banknote storing unit to validate banknotes and determine their operative position in the processing of the banknote. The removable banknote storing unit can mount one or more of a plurality of passive optical guide units capable of receiving and translating light from the light emitter and returning it to the photo receptor. Where possible, it is preferable that the optical guide unit have a light projecting surface and a light receiving surface that can be easily cleaned and accessible such as on the surface of the banknote storing unit.

Correspondingly, the light emitting or projection section and the light receiving or receiving section can be permanently mounted in the banknote receiving unit. Therefore, the electrical parts such as a photo electric emitter and a sensor do not need to reside on, or be in the banknote storing unit, nor do they need to be powered for activation. As can be appreciated, these optical guide units and the optical emitter and receiver pair units are positioned close together and operatively associated when the banknote storing unit is mounted within the banknote receiving unit.

Thus, light can be emitted through a banknote from the light emitting element and the optical guide unit can then translate the light back through the banknote to an adjacent light receiving element such as shown, for example, in Figure 5 where the light emitter 145 is mounted adjacent to the light receiver 147 and an optical guide 124 can be mounted on the upper surface of the storage box and operatively positioned with a pair of reflecting surfaces 138 and 140 for directing the light.

As also can be appreciated, the respective light emitting and receiving surfaces both on the banknote receiving unit and on the banknote storing unit can be readily accessible for maintenance to remove any debris or dust.

Other optical guide units and optical emitter receiver pair units can determine the position of the banknote or as shown in Figures 7 and 8, the location of a mechanical member whose presence or absence in intercepting the light is indicative of the status of operation of the bank receiving unit.

In both cases, the light emitting and light receiving functions are appropriately mounted within the bank receiving unit and an optical guide unit can be a passive transparent plastic member with appropriately reflective surfaces for usefully guiding the light from the light emitter.

As can be readily appreciated, the advantage of the present invention in this field provides a significant economic impact and advantage.

“Thus when differences that may appear technologically minor nonetheless have a practical impact, particularly in a crowded field, the decision-maker must consider the obviousness of the new structure in this light.”

*Continental Can Co. USA Inc. v. Monsanto Co.*, 20 U.S.P.Q. 2d. 1746, 1752 (Fed. Cir. 1991).

The Office Action contended that Claims 1-3, 6-14, 17-20 and 22-29 were completely anticipated by *Plesko* (U.S. Patent No. 5,624,017).

“[A]nticipation by inherent disclosure is appropriate only when the reference discloses prior art that must *necessarily* include the unstated limitation. . . .”

*Transclean Corp. v. Bridgewood Services, Inc.*, 290 F.3d 1364, 62 USPQ2d 1865 (Fed. Cir. 2002)

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“An anticipating reference must describe the patented subject matter with sufficient clarity and detail to establish that the subject matter existed in the prior art and that such existence would be recognized by persons of ordinary skill in the field of the invention. *See In re Spada*, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990); *Diversitech Corp. v. Century Steps, Inc.*, 850 F.2d 675, 678, 7 USPQ2d 1315, 1317 (Fed. Cir. 1988).”

Thus, in order for *Plesko* to be an anticipatory reference, it must expressly disclose and necessarily include the patented subject matter so that it would be recognized by a person of ordinary skill in the field of the invention.

The Office Action contended that *Plesko*, in Figure 1, showed a housing 22 and the internal machinery and circuit boards that provided a validation/drive module 21 to be fitted, as shown in Figure 5, as a complete “upstacker” configuration such as used for soft drink vending machines. See Column 7, Lines 16-20.

An alternative variation would have portion 22 as a stacker module, alone, while portion 21 purportedly would constitute a separate validation module which can simply accept bills and operate independently of the stacker module. Thus, as noted on Column 7, the entire validation module 21 could be completely separable from the cassette stacker 22. The validation module, however, in both embodiments contains the recognition electronics, validation sensors, control electronics, power supply and motor. Thus, the teaching to a person of ordinary skill in this field is that two approaches are provided. Either an upstacker configuration with the entire structure of Figure 5 as a combination bill storer with electronics for validating the bills integrated into the safe or bill storer portion.

Alternatively, a person of skill in the field would be taught that the validation module operation by itself which contains the currency validator could operate without a stacker. See Column 7, Lines 32-65.

There is no teaching of a banknote storing unit with a plurality of optical guide units positioned within the storing unit and separate optical emitter receiver pair units of a light emitting and a light receiving electronic package being contained in the banknote receiving unit and becoming operative only when the removable banknote storing unit is positioned within the banknote receiving unit.

Referring to Figures 1 and 5 of *Plesko*, it can be seen that the validation of bills by having a photo detector on one side of a bill passageway must interface with a light emitting LED 2 on the other side, with a light guide 142 positioned between these two electronic elements. A separate circuit board 122 supports the light emitting diode 2 while circuit board 121 supports the light receiving photo detector 3.

This teaching is consistent with the purportedly broad statement of a modular architecture to permit multiple configurations of the basic units as defined in Column 9, Lines 63-67.

Actually, a person of ordinary skill in this field would be particularly directed to the teaching of a bill stacker mechanism which teaches away from a cam driven pusher plate mechanism. The bill stacker mechanism employs movable stacker bars, shown for example as 18b and 18a in Figures 2a-2e, which discloses a manner in which bills can be received and by a counterclockwise rotation, captured by the grooves in the bars 18a and 18b and appropriately stacked.

The Office Action specifically referred to Figure 10 of the *Plesko* reference in order to purportedly disclose the arrangement of a photo emitter such as an LED 2 (147) and a photo

transistor receiver 3 (137) with a light guide of a polycarbonate plastic positioned between the two electronic elements. See the description of the optical-signal processing, Column 11, Lines 19-51.

Note the position of the optical guide member 142 can also be seen in Figure 1. Basically, a light emitting diode such as LED 2 will emit light into the cylinder portion, which is then reduced to a narrow rectangular spread 192 with the banknote passing between the end of the light guide 142 and the photo transistor 3. Again, referring to Figure 1, this is the validation module 21 and there is no teaching of a passive light guide member of any configuration mounted within the storage unit for the banknotes, that is the stacker module 22.

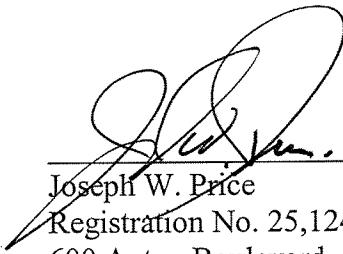
Our claims clearly define these features in a novel and patentable manner which is neither anticipated nor rendered obvious by the *Plesko* reference.

It is believed the present application is now allowable and an early notice of allowance is solicited.

If the Examiner believes a telephone interview will help further the prosecution of this case, he is respectfully requested to contact the undersigned attorney at the listed phone number.

Very truly yours,

**SNELL & WILMER L.L.P.**

  
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